

Claims

What is claimed is:

1. A method for protecting a character entered at a graphical interface, said method comprising the steps of: generating a set of images that form a complete image of a keypad having a button-to-character assignment; displaying said graphical keypad using said image set; and, obtaining the character of a selected button using said button-to-character assignment.
2. The method of claim 1, further comprising the step of repeating said steps in claim 1 to obtain a sequence of characters.
3. The method of claim 2, further comprising the step of generating a different button-to-character assignment for each repetition.
4. A method for generating a set of images from a complete image of a character belonging to a character set, said method comprising the step of distributing the illuminated pixels in said complete image among two or more images based upon pixel group.
5. The method of claim 4, wherein an image in the generated image set contains complete, partial or no information of said original image.
6. The method of claim 4, further comprising the step of changing said distribution based upon time.
7. The method of claim 4, further comprising the steps of: computing the visible probabilities for all possibly illuminated pixels in a complete image; and, partitioning said pixels into groups based upon visible probability.
8. The method of claim 1, wherein said generating step is based upon the method as claimed in claim 4.
9. The method of claim 1, wherein said displaying step comprises the step of displaying the images in said image set sequentially and cyclically.
10. A computer system for protecting a character entered at a graphical interface, said system comprising: means for generating a set of images that form a complete image of a keypad having a button-to-character assignment; means for displaying said graphical keypad using said image set; and, means for obtaining the character of a selected button using said button-to-character assignment.
11. The computer system of claim 10, further comprising means for repeating said steps in claim 10 to obtain a sequence of characters.

12. A computer-readable storage medium having stored therein instructions for performing a method of protecting a character entered at a graphical interface, the method comprising the steps of: generating a set of images that form a complete image of a keypad having a button-to-character assignment; displaying said graphical keypad using said image set; and, obtaining the character of a selected button using said button-to-character assignment.

13. The computer-readable storage medium of claim 12, wherein said performed method further comprising the step of repeating said steps in claim 12 to obtain a sequence of characters.

14. A computer system for generating a set of images from a complete image of a character belonging to a character set, said system comprising means for distributing the illuminated pixels in said complete image among two or more images based upon pixel group.

15. The computer system of claim 14, further comprising: means for computing the visible probabilities for all possibly illuminated pixels in a complete image; and, means for partitioning said pixels into groups based upon visible probability.

16. A computer-readable storage medium having stored therein instructions for performing a method of generating a set of images from a complete image of a character belonging to a character set, the method comprising the step of distributing the illuminated pixels in said complete image among two or more images based upon pixel group.

17. The computer-readable storage medium of claim 16, wherein said performed method further comprising the steps of: computing the visible probabilities for all possibly illuminated pixels in a complete image; and, partitioning said pixels into groups based upon visible probability.

18. A system for protecting a character entered at a graphical interface, said system comprising: a network of computers; means for generating a set of images that form a complete image of a keypad having a button-to-character assignment; means for displaying said graphical keypad using said image set; and, means for obtaining the character of a selected button using said button-to-character assignment.

19. The system of claim 18, wherein said means for generating and obtaining are provided by a computer in said network, and said means for displaying is provided by another computer in said network.

20. The system of claim 18, wherein said means for generating, displaying and obtaining are provided by multiple computers in said network working together to perform the method of claim 1 with each computer performing at least one of the steps in the method of claim 1.

21. The system of claim 18, further comprising means for repeating said steps in claim 18 to obtain a sequence of characters.

22. A computer-readable storage medium having stored therein instructions for performing a method of protecting a character entered at a graphical interface, the method comprising the steps of: generating a set of images that form a complete image of a keypad having a button-to-character assignment; sending said image set to a remote computer; receiving a selected button from said remote computer; and, obtaining the character of said selected button using said button-to-character assignment.

23. The computer-readable storage medium of claim 22, wherein said performed method further comprising the step of repeating said steps in claim 22 to obtain a sequence of characters.

24. A computer-readable storage medium having stored therein instructions for performing a method of protecting a character entered at a graphical interface, the method comprising the steps of: receiving an image set from a remote computer; displaying a graphical keypad using said image set; and, sending a selected button to said remote computer.

25. The computer-readable storage medium of claim 24, wherein said performed method further comprising the step of repeating said steps in claim 24 to obtain a sequence of characters.